From: "McClain-Vanderpool, Lisa" </O=EXCHANGELABS/OU=EXCHANGE;ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=972A6F345C3C4E3099FE8EC166EBC712-LVANDERP>

To: Roos

Judy;

CC:

Date: 8/19/2014 11:33:18 AM

Subject: batch 6

Attachments: <u>UPDATE Mandaree</u>, <u>ND Drinking Water.eml</u>

Link to TAT news release on spill.eml

AP EPA Trying to Confirm ND Spill Didn't Reach Lake.eml

**UPDATE Mandaree**, ND Drinking Water.eml

UPDATED AP Saltwater leak alters water supply for 1 ND town.eml

RE AP Saltwater leak alters water supply for 1 ND town.eml
RE AP Saltwater leak alters water supply for 1 ND town.eml

The Air Gaitwater leak alters water supply for 1 ND town.em

AP Saltwater leak alters water supply for 1 ND town.eml

From: "Bahrman, Sarah" <Sarah>

To: Mylott

Richard; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan;Ostrander

David; Williams

Laura:Romero

David;Mitre

Alfreda; Phillips

**Gregory; Hestmark** 

Martin:Thomas

Deb;Videtich

Callie; Hoskie

Sadie; Palomares

Art:Pardue-Welch

"Kimberly; Merida"

**Mario** 

CC:

Date: 7/10/2014 2:42:53 PM

Subject: UPDATE: Mandaree, ND Drinking Water

I just spoke with Jack Sorum of IHS and Bruce Fox, the head operator of the Mandaree Water Plant. Unfortunately they don't yet have any results from samples collected this morning, but hope to have that information first thing tomorrow. Bruce will call me as soon as he has any data and I will send that information out to you all. Jack and Bruce did verify that the intake pumps are on and the plant is back to normal operations. They shut the intake down for some time yesterday and were able to treat water from a 1M gallon raw water tank temporarily to continue to provide water to the town of Mandaree.

Please let me know if you have any questions.

Sarah E. Bahrman | Unit Chief, Drinking Water | U.S. Environmental Protection Agency - Region 8

(p) 303.312.6243 | (c) 303.903.8515 | (f) 877.876.9101

From: Bahrman, Sarah

Sent: Thursday, July 10, 2014 12:23 PM

To: Mylott, Richard; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Thomas, Deb; Videtich, Callie; Hoskie, Sadie

Subject: UPDATE: Mandaree, ND Drinking Water

#### Quick Update:

According to Pete Stevenson, the Army Corps of Engineers was out on the lake in the area of the intake to the Mandaree water plant and did not notice any visible sheen or other indicators that contamination had reached the water plant. As a precautionary measure, the water operators have collected samples from the area around the intake and from the treated water and will test for diesel range organics, sodium (as an indicator of total dissolved solids or brine), metals, and radiologicals. Samples are at the state lab in Bismarck and we should get some preliminary results later today.

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Sent: Thursday, July 10, 2014 9:38 AM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura;

Romero, David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: UPDATED AP: Saltwater leak alters water supply for 1 ND town

### Fyi. Pete Stevenson is on-scene.

## Estimated 1M gallons of saltwater leaks in ND bay

By Associated Press July 9 at 7:54 PM

MANDAREE, N.D. — Around 1 million gallons of saltwater spilled into a North Dakota bay, causing some environmental damage but sparing a nearby lake that provides drinking water for an American Indian reservation, company and tribe officials said Wednesday.

Three Affiliated Tribes Chairman Tex Hall told The Associated Press that an underground pipeline near Mandaree leaked about 24,000 barrels of brine into Bear Den Bay, a tributary to Lake Sakakawea. That Missouri River reservoir provides water to communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water. At least some damage to trees, bushes and grass was reported, but the extent wasn't immediately clear.

Miranda Jones, vice president of environmental safety and regulatory at Houston-based Crestwood Midstream Services Inc., whose subsidiary Aero Pipeline LLC owns the pipeline, said the leak likely started over the weekend but wasn't discovered until Tuesday. The pipeline is not equipped with a system that sends an alert when there's a leak, she said.

"This is something that no company wants on their record, and we are working diligently to clean it up," Jones said.

Tribal leaders switched to an alternative source of water Wednesday but were again tapping Lake Sakakawea after concluding the contamination was limited to the bay, Hall said.

An investigator with the federal Environmental Protection Agency arrived Wednesday at the site.
Kris Roberts, an environmental geologist with the North Dakota Health Department, said damage from the toxic spill could be seen Wednesday.
"We've got dead trees, dead grasses, dead bushes, dying bushes," Roberts said.
Karolin Rockvoy, a McKenzine County Emergency manager, said the spill appeared to have gone undetected for some time.
"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."
The number of saltwater spills in North Dakota has grown with the state's soaring oil production.
North Dakota produced 25.5 million barrels of brine in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.
In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

The ruptured pipeline allowed saltwater to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive

die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the brine is pumped underground for permanent storage. Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature. MacPherson reported from Bismarck, N.D. From: Mylott, Richard **Sent:** Wednesday, July 09, 2014 4:27 PM To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura;

Stevenson, Peter; Romero, David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

By Associated PressJuly 9 at 5:31 PM

MANDAREE, N.D. — Tribal leaders switched to an alternative source of water Wednesday for one town on an American Indian reservation in North Dakota following a substantial leak from a saltwater pipeline.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water.

Three Affiliated Tribes Chairman Tex Hall said in a statement that "there are no specific concerns over the water safety" but that tribal officials closed the water intake to Mandaree as a precaution without elaborating on what steps were taken. Hall said the briny water did not appear to have reached Lake Sakakawea.

Houston-based Crestwood Midstream Services Inc., owner of the pipeline, said in a statement Wednesday that the spill was contained and cleanup was underway. The company said it was investigating the cause of the leak but would not comment beyond its statement.

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Howard;Card

Joan;Ostrander

<u>David;Williams</u>

<u>Laura;Romero</u>

**David; Morales** 

Monica;Mitre

Alfreda; Phillips

<u>Gregory;Hestmark</u>

"Martin; Stavnes"

**Sandra** 

CC:

Date: 7/10/2014 12:58:00 PM

Subject: Link to TAT news release on spill

 $\frac{\text{https://www.facebook.com/NorthSegmentOfTheThreeAffiliatedTribes/photos/a.464307356975217.1073741826.448088225263797/702940339778583/type=1\&theater}$ 

From: Mylott, Richard

Sent: Thursday, July 10, 2014 1:42 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Romero

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Stavnes, Sandra

Subject: AP: EPA Trying to Confirm ND Spill Didn't Reach Lake

#### **EPA Trying to Confirm ND Spill Didn't Reach Lake**

MANDAREE, N.D. — Jul 10, 2014, 3:35 PM ET

By JOSH WOOD and JAMES MacPHERSON Associated Press

Officials are assessing a spill of oil-drilling saltwater from a North Dakota pipeline to ensure none of the brine affected the lake an American Indian reservation uses for drinking water, the Environmental Protection Agency said Thursday.

In its first public statement in the two days since the spill was detected, the agency said it had no confirmed reports that the saltwater had reached Bear Den Bay. It leads to Lake Sakakawea, which provides water for the Fort Berthold reservation occupied by the Mandan, Hidatsa and Arikara tribes in the heart of western North Dakota's booming oil patch.

EPA said most of the spill was pooled on the ground, soaked into the soil and held behind beaver dams. It said the leak involved an estimated 24,000 barrels, or 1 million gallons, of saltwater and condensate, which are byproducts of oil and gas production.

Cleanup at the reservation site continued Thursday and was expected to last for weeks, said Miranda Jones, the vice president of environmental safety and regulatory at Houston-based Crestwood Midstream Partners Inc.

Jones said the leak at the underground pipeline, owned by Crestwood subsidiary Arrow Pipeline LLC, likely started over the Fourth of July weekend. The pipeline was not equipped with a system that sends an alert when there is a leak, she said, and the spill was only discovered when the company was going through production loss reports.

"This is something no company wants on their record, and we are working diligently to clean it up," Jones said.

Although the EPA said additional assessment activity was being conducted, company and tribal officials said the spill had been contained and did not affect the lake.

"We have a berm and a dike around it, around that bay area, to keep it from going into the lake," said Three Affiliated Tribes Chairman Tex Hall.

Saltwater is a naturally occurring, unwanted byproduct of oil and natural gas production that is between 10 and 30 times saltier than sea water. The state considers it an environmental hazard.

The briny byproduct also may contain petroleum and residue from hydraulic fracturing operations.

Kris Roberts, an environmental geologist with the North Dakota Department of Health, said damage from the toxic spill could be seen when he visited the site on Tuesday.

"We've got dead trees, dead grasses, dead bushes, dying bushes," he said.

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Fort Berthold Indian Reservation plays a key role in the state's oil production, the second-highest in the nation. The reservation currently represents more than 300,000 of North Dakota's 1 million barrels of oil produced daily, according to the state's Department of Mineral Resources.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

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Monica; Mitre

Alfreda; Phillips

**Gregory; Hestmark** 

"Martin; Stavnes"

<u>Sandra</u>

CC:

Date: 7/10/2014 12:41:52 PM

Subject: AP: EPA Trying to Confirm ND Spill Didn't Reach Lake

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To: Mylott

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Shaun; Cantor

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**David; Morales** 

Monica; Mitre

Alfreda; Phillips

**Gregory;Hestmark** 

Martin; Thomas

Deb; Videtich

Callie:Hoskie

**Sadie** 

CC:

Date: 7/10/2014 11:23:01 AM

Subject: UPDATE: Mandaree, ND Drinking Water

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Romero, David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: UPDATED AP: Saltwater leak alters water supply for 1 ND town

### Fyi. Pete Stevenson is on-scene.

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CC:

Date: 7/10/2014 8:37:39 AM

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By Associated PressJuly 9 at 5:31 PM

MANDAREE, N.D. — Tribal leaders switched to an alternative source of water Wednesday for one town on an American Indian reservation in North Dakota following a substantial leak from a saltwater pipeline.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water.

Three Affiliated Tribes Chairman Tex Hall said in a statement that "there are no specific concerns over the water safety" but that tribal officials closed the water intake to Mandaree as a precaution without elaborating on what steps were taken. Hall said the briny water did not appear to have reached Lake Sakakawea.

Houston-based Crestwood Midstream Services Inc., owner of the pipeline, said in a statement Wednesday that the spill was contained and cleanup was underway. The company said it was investigating the cause of the leak but would not comment beyond its statement.

The federal Environmental Protection Agency said an investigator was heading to the site Wednesday afternoon.
Roberts said damage from the toxic spill could be seen Wednesday.
"We've got dead trees, dead grasses, dead bushes, dying bushes," Roberts said.
Karolin Rockvoy, a McKenzine County Emergency manager, said the spill appeared to have gone undetected for some time.
"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."
The number of saltwater spills in North Dakota has grown with the state's soaring oil production.
North Dakota produced 25.5 million barrels of briny water in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.
In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.
The ruptured pipeline allowed briny water to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the briny water is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

From: "McClain-Vanderpool, Lisa" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=972A6F345C3C4E3099FE8EC166EBC712-LVANDERP>

To: <u>Bahrman</u>

Sarah;

CC:

Date: 7/10/2014 8:14:06 AM

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Thanks for keeping us in the loop!

Too many firedrills – I can never make the Tuesday meetings to get updates!

Lisa

From: Bahrman, Sarah

Sent: Thursday, July 10, 2014 8:10 AM

**To:** Mylott, Richard; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero, David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Videtich, Callie; Thomas, Deb; Hoskie, Sadie

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Hi all –
Jack Sorum, a drinking water treatment engineer with Indian Health Service, is on site in Mandaree this morning to evaluate the impact to the drinking water intake, what samples have been or should be collected in that area, and the status of the water supply. Jack has Pete Stevenson's cell phone number so they can coordinate.
I will plan to send an update later this morning once we have more information. Please let me know if you have any questions.
Thanks, Sarah
Sarah E. Bahrman   Unit Chief, Drinking Water   U.S. Environmental Protection Agency - Region 8
(p) 303.312.6243   (c) 303.903.8515   (f) 877.876.9101

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura;

Stevenson, Peter; Romero, David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

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From: "Bahrman, Sarah" <Sarah>

To: Mylott

Richard; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan;Ostrander

David; Williams

Laura; Stevenson

Peter;Romero

**David; Morales** 

Monica; Mitre

Alfreda; Phillips

**Gregory; Hestmark** 

Martin; Videtich

Callie;Thomas

"Deb: Hoskie"

Sadie

CC:

Date: 7/10/2014 7:09:43 AM

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Joan;Ostrander

David; Williams

Laura; Stevenson

Peter;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

"Gregory; Hestmark"

**Martin** 

CC:

Date: 7/9/2014 3:26:38 PM

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